

What Is Claimed Is:

1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polynucleotide fragment of SEQ ID NO:1;
- (b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:2;
- (c) a polynucleotide encoding a polypeptide domain of SEQ ID NO:2;
- (d) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:2;
- (e) a polynucleotide encoding a polypeptide of SEQ ID NO:2 having biological activity;

and

(f) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(e), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

(g) a polynucleotide fragment of SEQ ID NO:4;

(h) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:5 or a polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203503;

(i) a polynucleotide encoding a polypeptide domain of SEQ ID NO:5 or a polypeptide domain encoded by the cDNA sequence included in ATCC Deposit No: 203503;

(j) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:5 or a polypeptide epitope encoded by the cDNA sequence included in ATCC Deposit No: 203503;

(k) a polynucleotide encoding a polypeptide of SEQ ID NO:5 or a polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203503, having biological activity; and

(l) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (g)-(k), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

(m) a polynucleotide fragment of SEQ ID NO:7;

(n) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:8 or a polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203501;

(o) a polynucleotide encoding a polypeptide domain of SEQ ID NO:8 or a polypeptide domain encoded by the cDNA sequence included in ATCC Deposit No: 203501;

(p) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:8 or a polypeptide epitope encoded by the cDNA sequence included in ATCC Deposit No: 203501;

(q) a polynucleotide encoding a polypeptide of SEQ ID NO:8 or a polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203501, having biological activity; and

(r) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (m)-(q), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

(s) a polynucleotide fragment of SEQ ID NO:10;

(t) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:11 or a polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203502;

(u) a polynucleotide encoding a polypeptide domain of SEQ ID NO:11 or a polypeptide domain encoded by the cDNA sequence included in ATCC Deposit No: 203502;

(v) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:11 or a polypeptide epitope encoded by the cDNA sequence included in ATCC Deposit No: 203502;

(w) a polynucleotide encoding a polypeptide of SEQ ID NO:11 or a polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203502, having biological activity; and

(x) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (s)-(w), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

2. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises a nucleotide sequence encoding full-length WF-HABP (SEQ ID NO:1), WF-HABP (SEQ ID NO:4), OE-HABP (SEQ ID NO:7), or BM-HABP (SEQ ID NO:10).

3. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises a nucleotide sequence encoding the polypeptide encoded by the cDNA sequence included in ATCC Deposit No: 203503, 203501, or 203502.

4. The isolated nucleic acid molecule of claim 1, wherein the polynucleotide fragment comprises the entire nucleotide sequence of SEQ ID NO:1; 4, 7, 10 or the cDNA sequence included in ATCC Deposit No: 203503, 203501, or 203502.

5. The isolated nucleic acid molecule of claim 2, wherein the nucleotide sequence comprises sequential nucleotide deletions of nucleotides encoding either the C-terminus or the N-terminus.

6. The isolated nucleic acid molecule of claim 3, wherein the nucleotide sequence comprises sequential nucleotide deletions of nucleotides encoding either the C-terminus or the N-terminus.

7. A recombinant vector comprising the isolated nucleic acid molecule of claim 1.

8. A method of making a recombinant host cell comprising the isolated nucleic acid molecule of claim 1.

9. A recombinant host cell produced by the method of claim 8.

10. The recombinant host cell of claim 9 comprising vector sequences.

11. An isolated polypeptide comprising an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

- (a) a polypeptide comprising the amino and sequence of SEQ ID NO:2;
- (b) a polypeptide fragment of SEQ ID NO:2 having biological activity;
- (c) a polypeptide domain of SEQ ID NO:2;
- (d) a polypeptide epitope of SEQ ID NO:2;
- (e) a polypeptide comprising the amino and sequence of SEQ ID NO:5 or the encoded sequence included in ATCC Deposit No: 203503;
- (f) a polypeptide fragment of SEQ ID NO:5 or the encoded sequence included in ATCC Deposit No: 203503, having biological activity;
- (g) a polypeptide domain of SEQ ID NO:5 or the encoded sequence included in ATCC Deposit No: 203503;
- (h) a polypeptide epitope of SEQ ID NO:5 or the encoded sequence included in ATCC Deposit No: 203503;
- (i) a polypeptide comprising the amino and sequence of SEQ ID NO:8 or the encoded sequence included in ATCC Deposit No: 203501;

(j) a polypeptide fragment of SEQ ID NO:8 or the encoded sequence included in ATCC Deposit No: 203501, having biological activity;

(k) a polypeptide domain of SEQ ID NO:8 or the encoded sequence included in ATCC Deposit No: 203501;

(l) a polypeptide epitope of SEQ ID NO:8 or the encoded sequence included in ATCC Deposit No: 203501;

(m) a polypeptide comprising the amino and sequence of SEQ ID NO:11 or the encoded sequence included in ATCC Deposit No: 203502;

(n) a polypeptide fragment of SEQ ID NO:11 or the encoded sequence included in ATCC Deposit No: 203502, having biological activity;

(o) a polypeptide domain of SEQ ID NO:11 or the encoded sequence included in ATCC Deposit No: 203502;

(p) a polypeptide epitope of SEQ ID NO:11 or the encoded sequence included in ATCC Deposit No: 203502; and

12. The isolated polypeptide of claim 11, wherein the polypeptide fragment comprises sequential amino acid deletions from either the C-terminus or the N-terminus.

13. An isolated antibody that binds specifically to the isolated polypeptide of claim 11.

14. A recombinant host cell that expresses the isolated polypeptide of claim 11.

15. A method of making an isolated polypeptide comprising:

(a) culturing the recombinant host cell of claim 14 under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

16. The polypeptide produced by claim 15.

17. A method for preventing, treating, or ameliorating a medical condition which comprises administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 11 or of the polynucleotide of claim 1.

18. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of full-length WF-HABP, WF-HABP, OE-HABP, or BM-HABP comprising:

- (a) determining the presence or absence of a mutation in the polynucleotide of claim 1;
- (b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

19. A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject related to expression or activity of full-length WF-HABP, WF-HABP, OE-HABP, or BM-HABP comprising:

- (a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample;
- (b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

20. A method of identifying a binding partner to the polypeptide of claim 11 comprising:

- (a) contacting the polypeptide of claim 11 with a plurality of compounds; and
- (b) identifying compounds that bind the polypeptide.

21. A method of identifying compounds capable of enhancing or inhibiting a cellular response induced by full-length WF-HABP, WF-HABP, OE-HABP, or BM-HABP comprising:

- (a) contacting cells which express the polypeptide of claim 11, with a candidate compound; and
- (b) assaying a cellular response.

22. The method of claim 20 wherein the cellular response is hyaluronan binding.

*add A. >*